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SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 PAYMENT

No separate payment will be made for any requirements under this Section and all costs of implementation shall be included in the payment item(s) shown in Section 00010, "SOLICITATION, OFFER AND AWARD (SF 1442) AND BIDDING SCHEDULE."

1.2 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01, Preconstruction Submittals

SD-03, Product Data

SD-06, Test Reports

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause (Section 00700) entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.3.1.1 Designated Reviewers

The organization designated to perform the review for approval for items requiring Government approval (G) is identified by acronym in the (f) (CLASSIFICATION/GOVT OR A/E REVWR) column on the SUBMITTAL REGISTER. Following is a list of the acronyms used and their full description:

AOF = The Resident U.S. Army Corps of Engineers Area Office

TSD = Technical Services Division, Design Branch, Buffalo District,
U.S. Army Corps of Engineers

1.3.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.4 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.5 DISAPPROVED SUBMITTALS

When a submittal is returned to the Contractor and marked "DISAPPROVED" or "APPROVED - SUBJECT TO CONDITIONS INDICATED," the Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause (Section 00700) "Changes" shall be given promptly to the Contracting Officer.

1.6 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall submit all items listed on the Submittal Register and specified in other sections of these specifications. The Contracting Officer may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Submittals shall be made in the respective number of copies and to the respective address set forth below. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's,

manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER

See list of attachments in Section 00100, "INSTRUCTIONS, CONDITIONS AND NOTICES TO BIDDERS" for Submittal Register, listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the Submittal Register on a diskette that also contains instructions on the use of the diskette. Columns "c" through "f" have been completed by the Government; the Contractor shall complete columns "a" and "b" and "g" through "l" and submit the forms (two (2) hard copies plus associated electronic file) to the Contracting Officer for approval within 10 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved Submittal Register will become the scheduling document and will be used to control submittals throughout the life of the contract. The Submittal Register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025), listed as an attachment in Section 00100, shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor, are included in the QCS software that the Contractor may be required to use for this contract, or may be copied from the attached form. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

3.5.1 Procedures

Submittals shall be made as stipulated in paragraph "Contractor Submittal Procedures" of the "SPECIAL CONTRACT REQUIREMENTS" (Section 00800) and as specified herein. Contractor shall forward four (4) copies of each submittal to the following Area Office:

U.S. ARMY CORPS OF ENGINEERS
New York-Pennsylvania Area Office
1776 Niagara Street
Buffalo, NY 14207-3199

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. The distribution of approved copies will be as specified in the Contract Clause (Section 00700) entitled "Specifications and Drawings for Construction."

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals.

3.9 RESERVATION OF RIGHTS

The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.10 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR
(Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

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SECTION 01355

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SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 279

Standards for the Management of Used Oil

1.2 GENERAL REQUIREMENTS

The Contractor shall develop an environmental pollution control program and shall perform the work minimizing environmental pollution and damage as the result of construction operations. Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the utility of the environment for aesthetic, cultural and/or historical purposes. The control of environmental pollution and damage requires consideration of land, water, and air, and includes management of visual aesthetics, noise, solid waste, vibrations, radiant energy and radioactive materials, as well as other pollutants. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract.

1.3 SUBCONTRACTORS

The Contractor shall ensure compliance with this Section by subcontractors.

1.4 PAYMENT

No separate payment will be made for work covered under this Section, and all costs of implementation shall be included in the payment item(s) shown in Section 00010, "SOLICITATION, OFFER AND AWARD (SF1442) AND BIDDING SCHEDULE." The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, and local laws and regulations.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Notice of Intent to Commence Work; G,AOF

Notification indicating Contractor's intent to commence site work.

Preconstruction Survey

The Contractor shall submit a joint condition survey prior to starting any onsite construction activities.

Spill Response Plan; G,TSD

The Contractor shall furnish for review by the Government, not later than ten (10) days after receipt of the Notice to Proceed, a spill response plan for each type of contaminant that may be encountered during the course of the work.

1.6 ENVIRONMENTAL PROTECTION

1.6.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations.

1.6.2 Permits

The Contractor shall be responsible for operating within the conditions specified in the Government-prepared environmental protection documentation, which is included as an attachment to this solicitation. In particular, the Contractor shall be required to display a permit poster at the work site and submit a "Notice of Intent to Commence Work" form as indicated in the environmental documentation.

1.6.3 Preconstruction Survey

Prior to starting any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey after which the Contractor shall prepare a brief report indicating on a layout plan the condition of trees, shrubs and grassed areas immediately adjacent to work sites and adjacent to the assigned storage area and access routes as applicable. This report will be signed by both the Contracting Officer and the Contractor upon mutual agreement as to its accuracy and completeness.

1.6.4 Meetings

The Contractor shall meet with representatives of the Contracting Officer as needed for compliance with the environmental pollution control program.

1.6.5 Notification

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the previously mentioned Federal, State or local laws or regulations, permits, and other elements of the Contractor's environmental pollution control program. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action when approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspensions.

The Contractor shall submit, to the Contracting Officer, at least one (1) week prior to the commencement of site work, a completed copy of the Notice of Intent to Commence Work. A copy of this document is included with the environmental documentation included as an attachment to this solicitation.

1.6.6 Litigation

If work is suspended, delayed, or interrupted due to a court order of competent jurisdiction, the Contracting Officer will determine whether the order is due in any part to the acts or omissions of the Contractor, or subcontractors at any tier, not required by the terms of the contract. If it is determined that the order is not due to Contractor's failing, such suspension, delay, or interruption shall be considered as ordered by the Contracting Officer in the administration of the contract under the Contract Clause "SUSPENSION OF WORK."

1.6.7 Spill Response Plan

The Contractor shall develop a Spill Response Plan for each type of contaminant that may be encountered during the course of the work. The plan shall include provisions for immediate notification to the Contracting Officer and other applicable regulatory agencies. The notification shall include a description of the material spilled, quantities, location, time, date, the containment procedures effectuated, and the proposed cleanup procedures. The plan shall list the trigger-point quantity at which each contaminant becomes subject to a mandatory reporting procedure. The plan shall also include provisions for communicating with the news media and other governmental agencies having an interest. The names, addresses, telephone numbers and contact persons for each possible point of contact shall be listed in the plan.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 LAND RESOURCES

The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor.

3.1.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.1.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall not park vehicles under the "drip line" of trees and shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.1.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in cases where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the developed areas as approved by the Contracting Officer.

3.1.4 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

- a. Retardation and control of runoff. Runoff from the construction site or from storms shall be controlled, retarded, and diverted to

protected drainage courses by means of diversion ditches, benches, berms, and by any measures required by area wide plans adopted under Section 208 of the Clean Water Act.

- b. Erosion and sedimentation control devices. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features. Berms, dikes, drains, sedimentation basins, grassing, and mulching shall be maintained until permanent drainage and erosion control facilities are completed and operative.

3.1.5 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby waters. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of soil or sediment from entering nearby waters. Spoil areas shall be developed in accordance with the grading plan indicated on the drawings. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment.

3.1.6 Ground Vibration

Ground vibrations from construction activities shall be controlled at all times such that the vibrations will not damage facilities and structures at or near the site of the work, other than structures required to be demolished or removed under this contract.

3.2 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation when such application may cause contamination of the fresh water resources.

Monitoring of water areas affected by construction shall be the Contractor's responsibility. All water areas affected by construction activities shall be monitored by the Contractor.

3.2.1 Washing and Curing Water

Wastewaters directly derived from construction activities shall not be allowed to enter water areas unless it meets U.S. Environmental Protection Agency and applicable State water quality criteria. The Contractor shall be responsible for the removal and disposition of wastewater, including any filtering, ponding or other treatment.

3.2.2 Cofferdams, Diversions, and Dewatering Operations

Construction operations for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure shall be controlled at all times to limit the impact of water turbidity on the habitat for wildlife and on water quality for downstream use.

3.2.3 Stream Crossings

Stream crossings shall allow movement of materials or equipment without violating water pollution control standards of the Federal, State or local government.

3.2.4 Fish and Wildlife

The Contractor shall minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed by the Contractor prior to beginning of construction operations.

3.3 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards.

3.3.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities; and processing and preparation of materials, such as from asphaltic batch plants; shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient, competent equipment available to accomplish these tasks. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs. The Contractor shall comply with all State and local visibility regulations.

3.3.2 Hydrocarbons and Carbon Monoxide

Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

3.3.3 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

3.3.4 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall use methods and devices to control noise emitted by equipment and shall comply with the provisions of the State of New York rules.

3.3.5 Burning

Burning will not be allowed on the project site.

3.4 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of any materials, waste, effluents, trash, garbage, unsatisfactory excavated materials, oil, grease, chemicals, etc., in areas adjacent to streams, rivers, or lakes and in areas not authorized for waste disposal will not be permitted. If any waste material is dumped in unauthorized areas, the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, ground which has become contaminated through the fault or negligence of the Contractor shall be excavated, disposed of as directed by the Contracting Officer, and replaced with suitable fill material, compacted and finished with topsoil and planted as required to re-establish vegetation, all at the expense of the Contractor. Disposal of waste, trash and other materials off the project site shall be in accordance with all applicable Federal, State and local laws and requirements.

3.4.1 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste from the work area and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas.

3.4.2 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in labeled corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

3.4.3 Hazardous Wastes

The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing and shall collect waste in suitable containers observing compatibility. The Contractor shall transport hazardous waste off the work site and dispose of it in compliance with Federal, State, and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility.

3.4.4 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. There shall be no storage of fuel on the project site. Fuel must be brought to the project site each day that work is performed.

3.5 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Existing historical, archaeological, and cultural resources within the Contractor's work area will be so designated by the Contracting Officer if any has been identified. The Contractor shall protect these resources and shall be responsible for their preservation during the life of the Contract. If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include, but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. While waiting for instructions the Contractor shall record, report, and preserve the finds in accordance with the Contract Clause (Section 00700) "Differing Site Conditions." The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.7 PREVIOUSLY USED EQUIPMENT

The Contractor shall thoroughly clean all construction equipment previously used at other sites before it is brought into the work areas, ensuring that soil residuals are removed and that egg deposits from plant pests are not present; the Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.8 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.9 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause (Section 00700) "Cleaning Up".

3.10 RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore landscape features damaged or destroyed during construction operations inside and outside the limits of the approved work areas.

3.11 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental pollution control.

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01420

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SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
Ph: 617-770-3000
Fax: 617-770-0700
Internet: <http://www.nfpa.org>

NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)

Plan and Publication Sales
1220 Washington Avenue
Albany, NY 12232-0204
Ph: 518-457-2124
Internet: <http://www.dot.state.ny.us/specs/specbook.html>

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SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Quality Control Plan; G,AOF

Contractor Quality Control Plan Checklist; G,AOF

The Contractor shall furnish for review by the Government, not later than ten (10) days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan along with the completed Contractor Quality Control Plan Checklist proposed to implement the requirements of Section 00700, CONTRACT CLAUSES, clause entitled "Inspection of Construction." A copy of the checklist is included as an attachment and listed in paragraph "LIST OF ATTACHMENTS" of Section 00100, "INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS."

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause (Section 00700) titled "Inspection of Construction". The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the

quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, and shall be responsible for all construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first fifteen (15) days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started. Along with the CQC Plan, the Contractor shall complete the Contractor Quality Control Plan Checklist included as an attachment to this solicitation.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three-phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to an authorized official of the firm.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330, "SUBMITTAL PROCEDURES."

- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven (7) calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of ten (10) calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Government and signed by both the Contractor and

the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the on-site work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 1 year of construction experience on construction similar to this contract or a construction person with a minimum of 3 years experience in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as Project Superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals shall be made as specified in Section 01330, "SUBMITTAL PROCEDURES." The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least twenty-four (24) hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least twenty four (24) hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 COMPLETION INSPECTION

3.7.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the paragraph, "Commencement, Prosecution, and Completion of Work" of Section 00800, "SPECIAL CONTRACT REQUIREMENTS," or stated elsewhere in the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph "DOCUMENTATION." The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final Inspection.

3.7.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.7.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause paragraph titled "Inspection of Construction".

3.8 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. Additionally, these records shall include reports indicating the quantity of silt spread, quantities of both floatable and non-floatable debris removed from the gorge, and certified waybills and delivery tickets for all stone used, in accordance with Section 02232, "DEBRIS AND SILT REMOVAL". The original and one copy of these records in report form shall be furnished to the Government daily within twenty four (24) hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.9 SAMPLE FORMS

Sample forms are listed as attachments in Section 00100, "INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS."

3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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SECTION 01525

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SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards
for General Industry

29 CFR 1926 Safety and Health Regulations for
Construction

U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2003) Safety and Health Requirements
Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241 (2000) Safeguarding Construction,
Alteration, and Demolition Operations

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, AOF

Activity Hazard Analysis (AHA); G, AOF

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

1.3 DEFINITIONS

a. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

b. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even though provided by a physician or registered personnel.

c. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

d. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work;

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

e. Site Safety and Health Officer (SSHO). The superintendent or other qualified or competent person who is responsible for the on-site safety and health required for the project. The Contractor quality control (QC) person can be the SSHO on this project.

f. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and all applicable federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following minimum requirements:

Level 1:

- Worked on similar projects.
- 10-hour OSHA construction safety class or equivalent within last 3 years.
- Competent person training as needed.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.
- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

a. The Contractor will be informed, in writing, of the date of the preconstruction conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's Accident Prevention Plan (APP) before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

e. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.6.3.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.3.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below at paragraph 1.8.1. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 15 calendar days after the Notice to Proceed (NTP) date for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the resident Area Office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used such as CSPs, CIHs, STSS, CHSTs. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

c. Health Hazard Control Program. The Contractor shall designate a competent and qualified person to establish and oversee a Health Hazard Control Program in accordance with USACE EM 385-1-1, Section 6. The program shall ensure that employees, on-site Government representatives, and others, are not adversely exposed to chemical, physical and biological agents and that necessary controls and protective actions are instituted to ensure health.

d. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

e. Training Records and Requirements. List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation,

vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review 15 calendar days after the NTP date. Format subsequent AHA as amendments to the APP. An AHA will be developed by the Contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall protection methods used. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.10 DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

- a. Map denoting the route to the nearest emergency care facility.
- b. Emergency phone numbers.

- c. Copy of the most up-to-date APP.
- d. Current AHA(s).
- e. OSHA 300A Form.
- f. OSHA Safety and Health Protection-On-The-Job Poster.
- g. Safety and Health Warning Posters.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

- a. For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, including but not limited to 29 CFR 1910 and 29 CFR 1926, and other related submittals and activity fire and safety regulations. The most stringent standard shall prevail.

3.1.1 Hazardous Material Use

Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.2 EQUIPMENT

3.2.1 Equipment and Mechanized Equipment

- a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.3 HOUSEKEEPING

3.3.1 Clean-Up

All debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

3.3.2 Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, Barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

-- End of Section --

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SECTION 02232

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SECTION 02232

DEBRIS AND SILT REMOVAL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)

NYSDOT Item No. 620.03 M (1995) Stone Filling (Light)

1.2 MEASUREMENT

1.2.1 Silt and Non-floatable Debris

Measurement of silt and non-floatable debris will be based upon the computed volume, in cubic yards, of the transport vehicles. Each vehicle shall initially be jointly measured by the Contractor and the Contracting Officer and their capacities calculated. The Contractor will be provided the estimated volume of each load as it is determined by the Contracting Officer. If the Contractor disagrees with the estimated volume he shall file a protest immediately, the vehicle will be remeasured and the load re-estimated at his expense and he must be present so that correct measurements can be agreed upon. Failure to protest immediately will be equivalent to expressing satisfaction with the estimated measurement.

1.2.2 Floatable Debris

Measurement of chipped floatable debris will be based upon the computed volume, in cubic yards, of the transport vehicles. Each vehicle shall initially be jointly measured by the Contractor and the Contracting Officer and their capacities calculated. The Contractor will be provided the estimated volume of each load as it is determined by the Contracting Officer. If the Contractor disagrees with the estimated volume he shall file a protest immediately, the vehicle will be remeasured and the load re-estimated at his expense and he must be present so that correct measurements can be agreed upon. Failure to protest immediately will be equivalent to expressing satisfaction with the estimated measurement.

1.2.3 Access Road - Redressing and Regrading

Measurement of the Contractor furnished stone used for the grading and dressing of the access road will be made by the ton (2,000 lbs.), as verified by Waybills and Delivery Tickets. Certified waybills furnished by a certified weighmaster, and delivery tickets, shall be given to the Contracting Officer or his representative for each load of stone delivered

to the site. Material placed in excess of the stated tolerance will be measured and deducted from the amount of delivered stone, at the rate of 2,700 pounds per cubic yard. Any material not placed in the work, in accordance with the requirements of this specification, wasted, or used by the Contractor for other purposes, will not be measured or paid for.

1.2.4 Haul Road

No measurement, for the purpose of payment, will be made for the work required to dress and grade the haul road. The surface of the haul road will be prepared to the satisfaction of the Contracting Officer and shall provide a safe and usable roadway for rubber-tired vehicles. It shall be maintained for the duration of the debris and silt removal operations, with a final grading at the conclusion of the contract.

1.3 PAYMENT

1.3.1 Silt and Non-floatable Debris

Payment will be made at the contract unit price, per cubic yard, for removing and disposing of non-floatable debris and removing and spreading of silt in accordance with the contract drawing and specifications. Payment per cubic yard will include full compensation for all plant, labor, material, and equipment required to complete the work and to perform all other pertinent operations not specifically addressed, but necessary to complete the contract.

1.3.2 Floatable Debris

Payment will be made at the contract unit price per cubic yard for removing and disposing of floatable debris, including the processing of wood material into chips, in accordance with the drawing and specifications. The unit price payment will include full compensation for all plant, labor, material, and equipment required to remove and dispose of all floatable debris.

1.3.3 Access Road - Redressing and Regrading

Payment for the grading and dressing of the access road will be made at the contract unit price per ton of the Contractor furnished stone and will constitute full compensation for all costs including plant, labor, material, and equipment necessary to grade and dress, haul, place, and compact the existing and furnished stone material in accordance with the contract drawing and specifications.

1.3.4 Haul Road

Payment for the dressing and grading of the haul road will be included in the contract unit price for the removal and disposal of the silt and non-floatable debris as described in payment paragraph "Silt and Non-floatable Debris" above.

1.4 DESCRIPTION

The work specified herein consists of furnishing all plant, labor, equipment, materials, and performing all work necessary to remove and

dispose of all debris from within the area indicated on the contract drawing; remove and spread silt and dispose of all debris found in the conduits which cannot be flushed by means of cycling the gates of the dam; process all floatable wood debris into chips and dispose of these chips, off the Government reservation, and the Contractor shall assume responsibility for and ownership of these chips; and grade and dress the access road (parallel to the face of the dam), and grade the haul road. These roads are shown on the contract drawing.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Removal Plan; G,AOF

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, control of removed materials, removal and disposition of materials. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.

Upland Disposal Facility

Map illustrating the location of the upland disposal site to be used for non-floatable debris and a copy of the facility's NYSDEC permit shall be submitted prior to start of disposal operations.

SD-03, Product Data

Crushed Stone Fill; G,TSD

A document, required of the Contractor, from the stone supplier, that confirms the stone to be supplied conforms to the requirements of this specification.

1.6 SPECIFIC REQUIREMENTS

1.6.1 Coordination

Pursuant to Section 00700, Contract Clause entitled "OTHER CONTRACTS," the Contractor shall coordinate his efforts with any other Contractor(s) or Government plant that may be operating in the immediate area, to avoid any interference in work schedules. Any coordination situations and/or problems that occur, shall be brought to the immediate attention of the Dam Superintendent, or his representative.

1.6.2 Notification

The Contractor shall be responsible for notification of the following facilities at least two (2) weeks prior to the commencement of any contract work:

a. The Comstock-Michigan Fruit (Division of Curtice Burns) processing plant, located approximately one (1) mile downstream of the dam. POC: Mr. James Newcomb, phone (716) 658-2211.

b. The Canadea Dam, located upstream of the dam. POC: Mr. William Damon, phone (716) 365-2928/2962 at the dam or (716) 365-2915 at home. It is imperative that Mr. Damon be notified because releases from the Canadea Dam affect the water level and the working conditions upstream of Mt. Morris Dam. The Contractor shall also provide Mr. Damon with a phone number, whereby, he can contact the Contractor in case an emergency release of water is required.

1.7 MATERIALS AND LIMITS OF REMOVAL

The floatable debris to be removed consists primarily of trees and logs ranging in size up to approximately four (4) feet in diameter. Non-floatable debris consists of timber, railroad ties, tires, drums, and similar miscellaneous materials washed down the river. This material will be found in the gorge from the face of the dam to 2,000 feet upstream of the dam and up to Elevation 640. Additionally, all floatable and non-floatable debris shall be removed, as determined by inspection, from the banks to El. 640. The area is defined as within 2,000 feet from the face of the dam with elevations up to El. 640.

All of the silt between the face of the dam and 150 feet upstream, for the width of the gorge, down to El. 585, except for the access road, shall be removed. This area is defined as the width of the spillway section.

If the Contractor's operation for the removal of the debris and silt involves a pool elevation above 590.0, an approved verification shall be provided to the Contracting Officer that the work has been satisfactorily completed. On the banks of the gorge, debris and silt shall be removed to the undisturbed shale face of the gorge.

1.8 ACCESS TO THE WORK AREA

Access to the work area consists of an unpaved haul road, cut into the southern bank of the river gorge, approximately 2,000 feet long. It leads directly to the debris area, but it has a steep slope and will require dressing and grading work, to be performed by the Contractor, to make the road usable and safe. No new cuts into the existing river gorge will be allowed. Only debris blocking access along the road shall be removed. Vehicles must utilize the unpaved road (Dam Site Road) from State Highway No. 408 to the dam site as shown on the contract drawing. The Contractor will be required to observe all State, county, local, and other vehicular laws, rules, or regulations which are prescribed by duly constituted regulating agencies. It is the Contractor's responsibility to assure that the route of access specified can be traversed by the equipment intended for use in the contract work. If another route of access is desired, written approvals from the appropriate authorities shall be submitted to the Contracting Officer prior to its use.

1.9 POOL ELEVATION

The pool elevation will be controlled as cited in Section 00800, Special Contract Requirements paragraph entitled "PHYSICAL DATA." Historical pool elevations for the last six (6) years are listed in a table on the contract drawing. From June to October, the pool is held between El. 598.0 and El. 600.0, whenever possible, for scenic purposes. During the debris removal operations, the pool elevation will be lowered to below El. 590.0. When the pool elevation cannot be maintained below El. 590.0, causing a delay in the Contractor's operations, a time extension will be granted. The Contracting Officer will determine when the Contractor can recommence work. The Contractor will be granted a contract time extension for the duration of each work stoppage event, as determined by the Contracting Officer.

PART 2 PRODUCTS

2.1 CRUSHED STONE FILL

All stone fill shall be crushed stone conforming to the requirements of NYSDOT Item No. 620.03 M, corresponding to the following gradations:

<u>Stone Size</u>	<u>Percent of Total by Weight</u>
Lighter than 50 kg	90 - 100
Larger than 150 mm	50 - 100
Smaller than 12 mm	0 - 10

2.1.1 Listed Stone Sources

a. The following listed sources for stone materials have been inspected and tested and/or may have previously furnished materials that meet the quality requirements stipulated in the specifications. Each source listed contained, at the time of inspection and testing and/or previous use, suitable in-place stone from which the specified material quality and type could be or was produced. More detailed information for each of the listed sources is available for inspection by the Contractor in the Coastal/Geotechnical Section, Department of the Army, U.S. Army Engineer District, Buffalo, 1776 Niagara Street, Buffalo, NY 14207-3199. The project materials are indicated in accordance with the identification Table shown below:

<u>TYPE</u>	<u>MATERIAL</u>	<u>SIZE RANGE</u>
A	Stone Filling (Light)	12mm to 50kg (1/2in. to 100lbs.)

Category I - Sources

1. Blades Construction Products, Inc., Stuben Crushed Stone Division, RD 4, Bath, N.Y. 14810; (716) 324-3636; quarry at bath, NY; rock formation, Wiscoy graywacke and sandstone; listed for Type A stone production; Specific Gravity: 2.56; Inspected and tested in 1976 by the Buffalo District.

2. County Line Stone Co., County Line Road, Akron, N.Y. 14001, (716) 542-5435; quarry at Akron, NY; rock formation, Onondaga limestone; listed for Type A stone production; Specific gravity: 2.67. Inspected by the Buffalo District in 1991 and tested suitable for stone use by ORD in 1995.

3. Dolomite Products, 1150 Penfield Rd., Rochester, N.Y. 14625, (716) 381-7010; quarry at Penfield, NY; rock formation, Lockport dolomite; listed for Type A stone production; Specific gravity: 2.64. Inspected by the Buffalo District in 1995 and tested suitable for stone use by ORD in 1995.

4. Hanson Aggregates, P.O. Box 151, Honeoye Falls, N.Y. 14472; (716) 624-3800; quarry at Honeoye Falls, NY; rock formation is Onondaga limestone; listed for Type A stone production, Specific gravity: 2.66. Inspected and tested by the Buffalo District in 1991.

5. Genesee LeRoy Stone Corp., 6896 Ellicott St., Pavillion, N.Y. 14525, (716) 343-1787; quarry at Stafford, N.Y., rock formation, Onondaga limestone first and second lifts for riprap; listed for Type A stone production. Specific gravity: 2.64. Inspected by the Buffalo District in 1995 and tested suitable for stone use by ORD in 1995.

6. Shelby Quarry, 10830 Blair Rd., Medina, N.Y. 14104; (716) 798-4501; quarry at Shelby, NY; rock formation is Lockport dolomite, listed for Type A stone production. Specific gravity: 2.62. Inspected by the Buffalo District in 1995.

b. The above does not represent a comprehensive listing of all potential stone sources; others may exist. The sites listed as potential sources of material have not been investigated with respect to the availability of specific quantities and sizes of the material required for the project. Listing of the sources herein before only indicates that there could be some material in the source, if selected zones and appropriate quarrying techniques are used, that meet all the requirements stipulated in the specifications. The listing of sources and suppliers does not guarantee that the quality of sufficient quantities of material necessary for this contract are available at any of the sources listed nor does it guarantee that economical production can be obtained from that source.

c. Nothing herein is to be construed as implying that sources listed herein are actually interested in or capable of producing or offering stone in the size, gradation, weights or quantities required or that transportation from the source to the project is available. The Contractor shall verify each source selected for its capability to produce the quantity required of the quality, sizes, gradation, or weights stipulated in the specifications.

PART 3 EXECUTION

3.1 METHOD OF REMOVAL

3.1.1 Removal Plan

The method of debris and silt removal shall be the responsibility of the Contractor, however the intended method must be submitted and approved by the Contracting Officer prior to the commencement of operations. At a minimum, the Contractor's Removal Plan shall include the following:

- a. Specific details on equipment to be utilized (types, sizes, numbers, uses, etc.).
- b. Personnel to be utilized.
- c. Detailed schedule of operations.
- d. Sequence of work.
- e. Anticipated methods for accomplishing the work (floatable debris and silt removal plans, cycle times, equipment staging, procedure for crossing river to access north and west banks, etc.).
- f. Contingency plan to ensure completion of work within specified performance period taking into account the potential for weather delays.

Resuspension of sediment into the waters of the river during the excavation of silt shall be kept to a minimum. The Contractor's intended method of excavation shall minimize disturbance of adjacent material and provide for close coordination with the Dam Superintendent (Mr. Ben Mlodzinski, phone (585) 658-4220). This will assure that water releases occur at the farthest discharge gate from the excavation. The silt and debris shall be removed in front of the dam along the width of the spillway, and this may include crossing the river to get to the North side or having equipment that can reach from the access road. Additionally, the floatable debris along the log boom on the North side of the river shall be removed up to El. 640. Debris shall not be permitted to pass through the sluice gates in the dam. These gates are to be clean and free of foreign material at contract completion. The gravel access road, which is parallel and directly adjacent to the upstream face of the dam, is intended to provide the Contractor with progressive access to the material to be removed. Care shall be taken to avoid any damage to the dam. Repair of any damage shall be the complete responsibility of the Contractor.

3.1.2 Log Boom Breaching

A log boom, consisting of timbers attached to a cable, is located approximately 1,000 feet upstream of the dam as shown on the contract drawing. The Contractor shall exercise care when untangling and removing the debris from the log boom and removing debris and silt from the area described in the paragraph entitled "MATERIAL AND LIMITS OF REMOVAL." Historically, the log boom has been breached by burying and protecting a section of the boom to be driven over. The Contractor shall be responsible for protecting the log boom during breaching operations and for properly uncovering the buried section and ensuring that the boom floats freely at the project's completion and/or at the direction of the Contracting Officer. This log boom breaching and uncovering procedure may be required on more than one occasion during the period of performance. Any damage that occurs to the log boom due to these removal operations shall be repaired by the Contractor, at his expense, to the satisfaction of the Contracting Officer.

3.2 DISPOSAL OF MATERIAL

3.2.1 Silt

The Contractor shall remove silt from along the dam's upstream face and spread all silt, which does not contain timber or other debris, in areas approved by the Contracting Officer on the southeast side of the river. Grading of silt shall be performed in such a manner as to evenly distribute the material and to minimize the creation of mounds along the gorge bottom.

Records indicating the quantity of silt spread shall be submitted to the Contracting Officer on a daily basis, attached to each day's Quality Control Report, in accordance with Section 01451, "CONTRACTOR QUALITY CONTROL".

3.2.2 Floatable Debris

The Contractor shall remove and dispose of all the floatable wooden debris at a site off the Government reservation. The wood material shall be converted into wood chips, no larger than four (4) inches in length. Records indicating the quantity of floatable debris removed shall be submitted to the Contracting Officer on a daily basis, attached to each day's Quality Control Report, in accordance with Section 01451, "CONTRACTOR QUALITY CONTROL".

3.2.3 Non-floatable Debris

All other non-floatable debris, such as rubber tires, miscellaneous trash, etc., shall be removed and properly disposed of at an upland New York State Department of Environmental Conservation (NYSDEC) permitted site supplied by the Contractor. The Contractor shall submit to the Contracting Officer, a map illustrating the location of this upland disposal facility and a copy of the NYSDEC Permit. Records indicating the quantity of non-floatable debris removed shall be submitted to the Contracting Officer on a daily basis, attached to each day's Quality Control Report, in accordance with Section 01451, "CONTRACTOR QUALITY CONTROL".

3.3 GRADING OF THE ACCESS ROAD

The Contractor shall grade and dress the existing access road to the typical cross-sections shown on the contract drawing. The material to be used in the grading and dressing of the access road shall be stone fill, as described in paragraph entitled "CRUSHED STONE FILL". The stone shall be free from all organic matter and deleterious material. The road surface shall be graded down to the existing gravel, to remove any silt and debris which has accumulated. Stone shall be placed in maximum lifts of 30 inches and be compacted by a minimum of four (4) passes of construction equipment over each lift. A vertical tolerance of +/- six (6) inches will be allowed. Certified waybills and delivery tickets for all stone used shall be submitted to the Contracting Officer on a daily basis, attached to each day's Quality Control Report, in accordance with Section 01451, "CONTRACTOR QUALITY CONTROL".

-- End of Section --